

Pollution Prevention and NEPA

This article reminds readers of DOE, Council on Environmental Quality (CEQ), and Environmental Protection Agency (EPA) guidance on considering pollution prevention in the NEPA process.

Major environmental laws enacted in the 1970s and 1980s (e.g., Clean Air Act, Clean Water Act, and Resource Conservation and Recovery Act) focused on controlling pollution and cleaning up immediate environmental problems, largely by limiting releases to environmental media. These laws have brought about substantial improvements in environmental quality, but they do not encourage consideration of the multimedia “big picture.” They create no direct incentives to reduce pollution at the source.

Recognizing this, Congress passed the Pollution Prevention Act in 1990 (42 U.S.C. 13101 et seq.), which established a national policy to prevent or reduce pollution at the source, recycle waste, treat pollution in an environmentally safe manner, and dispose of waste only as a last resort.

DOE Guidance on Pollution Prevention and NEPA

A 1992 memorandum from the Office of NEPA Policy and Assistance to NEPA Compliance Officers encouraged the use of the NEPA process to incorporate pollution prevention principles into DOE’s planning and decision

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Recent Conference Spotlights NEPA and Pollution Prevention

At the DOE Pollution Prevention Conference held in Albuquerque, New Mexico, November 15-19, 1999, Mary Greene, from the Office of NEPA Policy and Assistance, chaired a session entitled “NEPA, Pollution Prevention and Clean Air Act Conformity: Working Together for a Common Goal.” Ms. Greene reviewed the existing guidance on pollution prevention and NEPA (next page) and discussed the recently issued DOE draft guidance on “Coordinating Clean Air Act Conformity Requirements and the NEPA Process” (page 11).

The Council on Environmental Quality guidance on pollution prevention (58 FR 6478; January 29, 1993) encourages all Federal agencies to incorporate pollution prevention principles, techniques, and mechanisms into their NEPA planning, decision making, and document preparation. In Albuquerque, three NEPA practitioners related recent experiences coordinating pollution prevention efforts with the NEPA process.

- Mike Hickman, an engineer with the Savannah River Operations Office, discussed concurrent preparation of the *Process Waste Assessment*, *Pollution Prevention Design Assessment* and the *EIS for the Construction and Operation of a Tritium Extraction Facility at the Savannah River Site*. Mr. Hickman indicated that the Design Assessment helped to identify more than 50 pollution prevention opportunities that were incorporated into the proposed action analyzed in the NEPA review.

- Douglas Chapin, a physical scientist with the Richland Operations Office, and Rajendra Sharma, NEPA Compliance Officer for the Office of Nuclear Energy, discussed how a waste minimization and management plan is being developed for the Fast Flux Test Facility. The Facility is evaluated in the EIS being prepared for *Accomplishing Expanded Civilian Nuclear Energy Research and Development and Isotope Production Missions in the United States*. Mr. Chapin indicated that the plan would focus on using less hazardous substances and reducing waste generation, and would provide information for the Fast Flux Test Facility analysis in the EIS.

Some conference participants indicated that the Department should, but often does not, take credit for pollution prevention efforts that become integral to the proposed action or alternatives. Others recommended increased emphasis on pollution prevention in NEPA reviews of proposed actions.

Incorporating pollution prevention efforts within NEPA reviews will help meet Secretary Richardson’s pollution prevention and energy efficiency goals announced at the Pollution Prevention Conference. The goals set targets for reducing the generation of solid, hazardous, and radioactive waste; improving energy efficiency; reducing the use of ozone-depleting substances and emission of greenhouse gases; buying items with recycled content; and increasing vehicle fleet efficiency and use of alternative fuels.

Existing Pollution Prevention and NEPA Guidance

Documents marked with “*” may be found in the DOE NEPA Compliance Guide and also on the DOE NEPA Web at <http://tis.eh.doe.gov/nepa/> under DOE NEPA Tools.

- 1992** DOE’s Office of NEPA Policy and Assistance guidance on Integrating Pollution Prevention with NEPA Planning Activities *
- DOE’s Policy on Waste Minimization and Pollution Prevention
- 1993** CEQ’s Memorandum to Federal Agencies on Pollution Prevention and the National Environmental Policy Act *
- EPA’s Guidance on Incorporating EPA’s Pollution Prevention Strategy into the Environmental Review Process *
- 1994** DOE’s Office of Energy Research Guidance on Incorporating Pollution Prevention into the National Environmental Policy Act (NEPA) Process, <http://epic.er.doe.gov/epic/scripts/epic.exe?ShowProfile/388>
- 1995** EPA’s Pollution Prevention/Environmental Impact Reduction Checklists for NEPA/309 Reviewers, <http://es.epa.gov/oeca/ofa/pollprev.html>
- 1996** DOE’s Pollution Prevention Program Plan
- DOE’s Office of Environmental Management Guidance on Incorporating Pollution Prevention into the National Environmental Policy Act Process

Other references

- The DOE Pollution Prevention Information Clearinghouse Home Page is found at <http://epic.er.doe.gov/epic/>.
- ESAVE (formerly Pollution Prevention Advisor), the DOE Defense Programs Quarterly Newsletter, is available at www.dp.doe.gov/dp45/p2/.
- The DOE Office of Environmental Management Pollution Prevention Home Page is at www.em.doe.gov/wastemin/.

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making, in anticipation of CEQ and EPA guidance. The Office of Science (formerly Energy Research) issued its own guidance entitled “Incorporating Pollution Prevention into the National Environmental Policy Act Process” in September 1994 (ER NCO Communication 94-05). Other Offices, including Environmental Management and Defense Programs, also have provided pollution prevention guidance, but not with a NEPA focus.

CEQ and EPA Guidance

CEQ has issued guidance to Federal agencies emphasizing that NEPA provides “a longstanding umbrella for a renewed emphasis on pollution prevention in all federal activities” (58 FR 6478; January 29, 1993). The CEQ guidance provides techniques for incorporating pollution prevention into Federal planning and decision making processes and for reporting on those efforts in NEPA documents. CEQ indicated that Federal policies, projects, procurements, and approvals are all areas in which pollution prevention efforts might be warranted. In addition, CEQ noted that pollution prevention could be incorporated into the NEPA process through scoping, the description of the proposed action and alternatives, and mitigation.

EPA’s Office of Federal Activities issued guidance in February 1993 to promote a clearer understanding of how pollution prevention can be incorporated into the NEPA environmental review process. In addition, in January 1995, EPA issued pollution prevention checklists for 30 types of projects (including energy management, power plants, hazardous waste incinerators, hazardous materials storage and treatment facilities, and cleanup activities).

Recommendations for Incorporating Pollution Prevention in the DOE NEPA Process

Implementing pollution prevention principles is good management and the right thing to do, consistent with the letter and spirit of NEPA, compliant with laws and guidance, and likely to produce efficiencies and savings. Pollution prevention approaches must be incorporated into project plans, however, not just discussed as elements in a NEPA review. The following recommendations, based on CEQ and EPA guidance, may assist in identifying and incorporating pollution prevention into the NEPA process and project decision making.

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Pollution Prevention

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- Evaluate early in project planning the potential for including pollution prevention in a proposed project. Potential approaches include reducing the amount or toxicity of waste generated; substituting materials; increasing efficiency in use of raw materials, energy, and water; purchasing energy-efficient equipment or materials with recycled content; modifying procedures to reduce waste; and reusing or recycling materials on the same or another project.
- In an EIS Notice of Intent, explicitly include pollution prevention as a scoping topic. Define pollution prevention and include examples to stimulate stakeholders' consideration of the subject.
- Design the proposed action and alternatives with pollution prevention approaches incorporated as project features. For example, when proposing the size and location of a facility, consider how its impacts depend on its size and on its distance to sensitive resources or transportation routes. In an EA or EIS, identify particular pollution prevention measures that were incorporated into the proposed action and alternatives and describe how they would reduce or prevent pollution.
- Identify recycling and energy recovery options in an EA or EIS that would be employed if the proposed action or alternatives were implemented.
- In an EA or EIS, identify pollution prevention approaches that could be mitigation measures and describe how they could reduce or prevent pollution.
- Consider including a distinct section entitled "Pollution Prevention" in an EA or EIS. This section could recap the pollution prevention measures incorporated into the proposal, alternatives, and potential mitigation measures. 